

**Commonwealth Broadband Forum, 2014
Safari Park Hotel, Nairobi, Kenya, 18 – 20 November
2014**

Event report

1 Executive Summary

The Commonwealth Broadband Forum, 2014 was held from 18th to 20th November 2014 at the Safari Park Hotel & Casino, Nairobi, Kenya, hosted jointly by the Communications Authority of Kenya, and the Ministry of Information, Communications and Technology of Kenya under the theme "Broadband for Accelerated Growth".

Being the premier annual broadband conference of the Commonwealth, the objective of the Commonwealth Forum was to examine the various aspects of broadband from developing National Broadband Strategies to the impact broadband is having and the role it plays in socio-economic development, and to share best practices and identify priority areas. The 2014 Forum focused on key aspects of the broadband eco-system including access & infrastructure, mobile technologies, the digital dividend, future spectrum allocations, cloud computing, applications & value added services, content development, financing broadband, and strengthening multi-stake holder initiatives to accelerate broadband investment projects.

The main objective of 2014 Forum was to improve understanding among stakeholders of the role broadband could and should play in socio-economic development and the need for equitable broadband access in terms of availability, affordability and accessibility.

Over three days, 35 resource persons delivered 10 sessions under the titles: The Future of Broadband, Broadband Access and Infrastructure, Mobile Technologies, The Digital Dividend: Future Spectrum Allocation, Cloud Computing for Emerging Markets, Applications and Value Addition of Broadband Innovations, Inclusive on-line learning, Low-cost space-from Imagination to Reality, Financing Broadband in Africa, and Strengthening multi-stake holder partnerships to accelerate investment projects in broadband infrastructure. This Forum was attended by around 150 participants representing 13 Countries.

2 Opening Ceremony

Mr. Juma Kandie, immediate Past Chair, CTO and Director, Human Capital and Administration, Communications Authority of Kenya (CA), noted the efforts by the CTO to develop capacity in ICTs in the global village. CA Director General, Mr. Francis Wangusi noted that the theme of the conference was in line with Kenya's efforts to implement the National Broadband Strategy, and called upon stakeholders to embrace both the Digital Migration process and their USF obligations. The CA chair, Mr. Ngene Gituku emphasised the commitment of CA to improving lives through ICTs. Prof. Tim Unwin, Secretary General, CTO pointed out that broadband is one of CTO's six priority areas, and emphasised the role of broadband in socio-economic development and the achievement of social justice. He emphasised the need to ensure broadband features more prominently in the Post 2015 development agenda. In his official opening speech, Mr. Joseph Tiampati ole Musuni, Principal Secretary, Ministry of Information, Communication and Technology, Kenya noted the relevance of broadband to Kenya's development goals. Noting that ICT infrastructure is a key pillar for achievement of Vision 2030, he outlined the various efforts undertaken by the Government of Kenya to support the implementation of the National

ICT masterplan and the National Broadband Strategy such as the new phase of the National optic fibre network, and digital registries. He also noted the establishment of KE-CIRT to ensure cyber security. He further noted that the operationalization of the USF will further support universal access to ICTs.

3 Session 1: The Future of Broadband

3.1 Summary

The session reviewed the present state of internet and broadband access with special emphasis on sub-saharan Africa. Milestones that have already been achieved include availability of high speed fibre connections to a number of countries at the African coastline and the rapid development of wireless broadband technologies. However, it was noted that last mile access still remains a challenge. Furthermore, internet/broadband access is still expensive to the common person. Also, it was noted that only a few countries in Africa have developed National Broadband Policies /Strategies and that even where these have been developed, there are implementation hurdles due to the multi-sectorial nature of broadband as well as funding and financing mechanisms. Finally, a panelist group shared their views of where they see Africa five to ten years down the line, with regard to the broadband eco-system. The panelists foresee massive growth in infrastructure, services, and devices in the near future, but took note that a conducive legal, policy and regulatory framework would be necessary. Development and implementation of National broadband plans is key to future broadband developments. Impediments such as high costs of broadband, and the accompanying challenges such as cyber threats were also reviewed.

3.2 Presentations/ Discussions

The session, chaired by Prof. Tim Unwin comprised of :-

(i). A key note address entitled: " The state of Broadband in 2014 and what lies ahead-By Marcelino Tayob -Senior Advisor, ITU Regional Office for Africa

(ii). A presentation entitled: "Achieving Universal Access to Broadband" by Eng. John N. Kariuki, - ICT/Telecommunications Consultant

(iii). A presentation entitled: "Digital Bangladesh: Future Plans for broadband rollout and what lies ahead "by Hon. Zunaid Ahmed Palak, MP, State Minister, Ministry of Posts and Telecommunications, Bangladesh

(iv). A Panel discussion on "What is the future for broadband over the next decade?"

3.3 Key Issues Arising

The key issues arising out of the session were as follows:

- Governments must demonstrate further infrastructure roll-out covering both wired and wireless access technologies
- The future of broadband in developing countries will be anchored on mobile broadband, hence the need to free up sufficient spectrum to support mobile broadband

- There must be effective National Broadband Policies and Strategies development and implementation
- Supporting infrastructure such as clean energy and transport must be developed
- Arising challenges such as Cyber-security and on-line child protection must be addressed
- As broadband infrastructure is rolled out, the bigger challenge is now how to put it to use, i.e Services, applications and content development
- Strategies have to be put in place to achieve Universal Access to Broadband
- In future, broadband will be used to access nearly all Government services, and will actively be employed in other sectors such as health, education, transport, and agriculture among others, hence the need for wider stakeholder participation
- An increase in smart devices, Cloud computing, Big data, M2M communication, Beyond 4G transition to 5G (LTE) is foreseen.
- A conducive legal, Policy and regulatory framework is required to support broadband
- It is necessary to lower the costs of broadband services and devices i.e by removing taxation. This will accelerate broadband uptake
- Develop incentives to encourage investment in the ICT Sector.

4 Session 2: Broadband Access and Infrastructure

4.1 Summary

This session addressed the importance of broadband infrastructure for sustainable socio-economic development. It was highlighted that the growth of broadband services is also spurred by user's demand for more bandwidth. It was therefore noted that broadband be viewed not just from the simplistic view of supply and demand but from the holistic broadband eco-system view that also includes services, applications & content as well as users. While observing that the available international bandwidth from a number of undersea cables terminating at the coasts of number of African countries was encouraging, challenges were observed on the side of the actual utilisation of this bandwidth by the end-user. It was observed that satellite technology could provide redundancy for frequent fibre cable cuts, and that satellite technology can also be used for last mile applications, overcoming the challenges of distance, terrain and availability of other infrastructure such as grid electricity. In order to enhance broadband infrastructure roll-out, it was observed that multi-sectorial stake-holder involvement would be necessary, as it would be essential for all infrastructure development such as roads, electricity grids, housing development, railway lines etc to provide for shared broadband access facilities. Shared infrastructure and open access were identified as means to increase broadband access.

Unfortunately, it was observed infrastructure sharing policy has been met by resistance from some operators who believe in infrastructure based competition rather than service based competition. There is definitely a need for operators to change their attitude towards infrastructure sharing. ICT regulators could support this by enforcing infrastructure sharing and open access policies. Also, issues were raised over cross-border connectivity of National Optic Fibre Infrastructure. It was noted that poor inland co-

ordination between countries especially while developing their National Broadband Strategies, lack of provision of redundancies, and increased costs to access the capacity, pose huge challenges in the uptake of broadband services.

4.2 Presentations/ Discussions

The session, chaired by Dr. Bitange Ndemo, Former Permanent Secretary, Ministry of Information and Communications, Kenya comprised of :-

(i). A presentation entitled: "Report on the growth challenges and opportunities of broadband access in East Africa for public and private sectors" by Paul Feenam, Director Government Services, Avanti, UK.

(ii). A presentation entitled: "Opening up the bandwidth bottleneck in Africa" by Martin Mutiiria, Director, Sales, Africa-WIOCC

(iii). A Panel discussion on "Fibre and satellite communications- What is the solution in getting Africa connected?"

4.3 Key Issues Arising

- Need for regulators and operators to work together to ensure infrastructure sharing and open access
- Greater cross-border coordination in the development of broadband infrastructure and harmonization of tariffs for bandwidth sale across borders
- Service providers should embrace service competition rather than infrastructure based competition
- Provide for shared broadband connectivity in the design of roads, railway lines, power grids, sewers, buildings & other infrastructure
- Development of Broadband infrastructure must be accompanied by an increase in the demand and supply of services, applications, and content
- Satellite could provide reliable broadband infrastructure back up and redundancy, as well overcome certain limitations in the last-mile connectivity.

5 Session 3: Mobile Technologies

5.1 Summary

This session reviewed the tremendous growth in the telecom mobile sector in Africa with a large number of countries in sub-saharan Africa recording mobile penetration rates above 50 per-cent. To clarify on the issue of mobile penetration, the distinction between unique mobile subscribers and mobile connections was reviewed and the impact the two notions have on mobile penetration calculation. Unique subscribers refer to unique individuals who may own a number of sim cards, while the number of mobile connections refer to the total number of sim cards which may include M2M connections.

While noting the massive growth in mobile penetration, it was argued that the corresponding growth in broadband penetration across Africa is still low, with most African countries recording broadband internet penetration rates of less than 10 per-cent. Further, it was noted that while Africa has the world's second largest number of mobile subscribers, and that a number of people are now enjoying the fruits of mobile technology advancement, challenges such as quality of service, affordability, rural penetration, effective competition and infrastructure rollout remain un-addressed. It was noted that

manufacturers had continued to avail cheaper smart phones with a number of specific smart phones now costing below \$ 50. In this regard, reduction or complete waiver on Government taxation on broadband services and devices was emphasized as a means to make broadband affordable. Satellite technology was suggested to address the challenges of terrestrial infrastructure roll-out. Further, the need for independent and impartial enforcement of policies and regulations was seen as a way to ensure fair market competition, and to protect the consumer and encourage private sector participation in the sector.

5.2 Presentations/ Discussions

The session, chaired by Mr. Daniel Onyango Obam, Communications Radio Technology Expert, National Communications Secretariat, Kenya comprised of :-

(i). A presentation entitled: "Innovative satellite services support successful and efficient deployment of regional broadband networks" by Abraham Awonuga, Managing Sales Director Africa, Intelsat, South Africa

(ii). A presentation entitled: "What does the future hold for 4G/LTE in Africa?" by Francis Hook, Director-Africa, GSMA

(iii). A Panel discussion on "Mobile broadband technology and network deployment – How can mobile operators successfully deploy regional broadband networks?"

5.3 Key Issues Arising

- Mobile operators should ensure reliability & quality of service in mobile provision
- Satellites can provide fibre & terrestrial downtime back-up as well as last mile connections especially in remote areas
- Need for Network scalability & Evolution (2G ,3G, 4G& beyond)
- Operators should have obligations to expand into rural areas
- Infrastructure sharing and open access should be emphasized
- Provision of renewable energy for end user devices is key
- Low literacy rates must be addressed to improve user capability
- Taxation on ICT services and devices must be reviewed, or removed altogether
- Consider incentives to investors for infrastructure roll out especially in underserved and unserved areas
- Operators must maintain a balance between profit generation and service coverage obligations
- Local content must be developed in diverse languages and be readily available
- Cheaper smart phone initiatives must be embraced.

6 Session 4: The Digital Dividend: Future Spectrum Allocation

6.1 Summary

The session examined issues related to the frequency spectrum expected to be freed up by the transition from analogue to digital television broadcasting, particularly how to allocate the 'digital dividend' resulting from the spectrum efficiencies gained by this transition in the frequency bands currently allocated to analogue TV broadcasting. The digital dividend spectrum has been identified for allocation to mobile broadband and other advanced wireless services.

The session noted that while previously, administrations have allocated frequency spectrum to those that are able to create the greatest overall benefit from it, and hence be able to efficiently utilize the allocated spectrum, there is need for regulators to ensure the spectrum is allocated to users who can demonstrate ability to provide access to rural areas, ensure a given quality of service as well be able to embrace infrastructure sharing and open access on their networks. The African Telecommunications Union (ATU) shared the various initiatives it has undertaken to assist AU member states in spectrum management especially with regard to harmonisation of AU member states positions i.e in World Radio Conferences (WRC) , frequency co-ordination and notification processes, efficient spectrum utilization and use of new technologies, and in Research & Development i.e discovering new spectrum allocation methods in collaboration with research institutions.

The session reviewed Spectrum Auctions as means to provide a useful tool to achieve efficient spectrum allocation, which may also generate significant revenue as a by-product. In this regard, a representative from the Nigerian Communications Commission shared their country experience and lessons from the 2.3 GHz spectrum licence auction conducted recently. The official regarded consultations with operators and stakeholders, clear auction rules, spectrum availability, and regulatory capacity to support the allocation process as critical success factors for a spectrum auction.

6.2 Presentations/ Discussions

The session, chaired by Mr. Francis Wangusi, MBS, Director General, Communications Authority of Kenya comprised of :-

(i). A presentation entitled: "Achieving efficient and effective spectrum utilization" by Abdoukarim Soumaila- Secretary-General, African Telecommunications Union

(ii). A presentation entitled: "Lessons from the Nigerian 2.3 GHz spectrum licence auction" by Dr. Henry Nkemadu, Deputy Director ,Policy, Competition and Economic Analysis, Nigerian Communications Commission.

(iii) A Panel discussion on" How do regulators ensure spectrum can be used to extend broadband to rural areas?"

6.3 Key Issues Arising

- Fast track release of spectrum for mobile broadband by embracing Analogue to Digital TV migration
- Regulators should avail a clear spectrum plan on availability and allocation the digital dividend spectrum for mobile broadband services
- There is need for African states, under ATU to lobby for African positions and adopt a common stand at the upcoming WRC-15 , and on other issues such as the future of C-Band
- There is need for GSMA to work more closely with Regulators and Operators in addressing challenges such as Digital Migration, TV white spaces technologies etc
- In a well designed spectrum auction, spectrum should be allocated to the parties that value them most, with Government securing revenue in the process, hence the need to set the auction reserve price such as to raise the minimum price and recover cost of administration of auction.
- It is also useful to consider universal access obligations, Quality of Service, and open access in addition to efficient use requirements while designing an auction.

7 Session 5: Cloud Computing for Emerging Markets

7.1 Summary

Cloud computing was noted as being key in making affordable investment in broadband infrastructure, services, and applications by allowing for the sharing and scalable deployment of services, as needed, from almost any location, and for which the customer can be billed based on actual usage. This session reviewed the terms, characteristics, and services associated with cloud computing. Characteristics such as infrastructure, provisioning, network access, and managed metering were presented. The primary business service models being deployed such as software, platform, and infrastructure as a service were reviewed. Common deployment models employed by service providers and users to use and maintain the cloud services such as the private, public, community, and hybrid clouds were discussed.

Also discussed at the session were the benefits and challenges associated with cloud computing and how developing countries can take advantage of cloud computing to advance critical infrastructure and services such as broadband. The session also identified the major challenges to the adoption of cloud computing in Africa as being low return on investment, lack of locally development content, and issues to do with privacy, confidentiality and intellectual property rights for data stored in the cloud especially since most of the cloud servers are hosted outside the continent of Africa. Also, the session resolved that there is need for countries and administrations in Africa to urgently formulate data protection acts or policies which would include information systems audits for cloud services. These measures would re-assure cloud users and spur further uptake of cloud services in Africa.

7.2 Presentations/ Discussions

The session, chaired by Mr. Muriuki Mureithi, Chief Executive Officer, Summit Strategies, Kenya, comprised of :-

- (i). A presentation entitled: "Is Cloud computing a critical information infrastructure? " by Dr. Martin Koyabe, Head of Research and Consultancy, Commonwealth Telecommunications Organisation
- (ii). A presentation entitled: "Investing in Cloud platforms-Reforming broadband access" by Phares Kariuki, Co-founder , Angani, Kenya
- (iii) A Panel discussion on " Digital privacy regulation – How to regulate the Cloud".

7.3 Key Issues Arising

- More physical and logical transparency in cloud computing is required
- Address barriers in investment in cloud computing in Africa including lack of return on investment, lack of local content, and privacy and security concerns for data stored on the cloud
- Enact and operationalise Data protection acts and policies.
- Embrace Information Systems Audits for Cloud services
- Enforce existing ISO and other standards on information security.

8 Session 6: Applications and Value Addition of Broadband Innovations

8.1 Summary

The session reviewed the mobile applications and value added services revolution that has changed the way we do business, transforming both the individual user, and business processes, by impacting the external customer experience of the organization and the way business units work internally and with partners. It was observed that advancements in mobile broadband infrastructure, and the accompanying increase in the quantity and affordability of the smartphone has established a thriving market for mobile applications, helping individuals and businesses increase productivity. The resulting value added services and applications (VAS & Apps) have led to the realisation of an all inclusive information society for socio-economic development. From games, social media , video streaming, news, stock market and mind maps, the number of mobile apps available is constantly growing, across the sectors of Finance & Banking, Agriculture, Health, Education, Government & Governance, Commerce, Transport, Entertainment, and Information search, among others.

In particular, the session reviewed m-health initiatives in the health sector, and the transformative mobile money transfer transactions in Kenya. Two m-health initiatives reviewed included a mobile application by Sproxil East Africa Ltd, used to authenticate drugs, and an m-health application to enhance learning and practice amongst community health volunteers in Kenya by Amref Health Africa. i Hub Kenya presented a number of innovative mobile application solutions for rural areas on m-Democracy, m-Learning, m-Health, and m- Finance.

On the mobile money transfer front, the forum heard that over 50 per cent of the entire Kenyan population uses mobile money transfer services, and that Kenya shillings 2.3 trillion was transferred via mobile money services in the last one year alone. The service has resulted in employment opportunities in terms of agents and vendors for the mobile money companies, and contributed greatly in taking financial services to the un-banked in the rural areas.

The session had a thorough discussion on capitalising the thriving mobile-commerce, and suggested integration of other money payment systems into mobile technology to enhance global trading via mobile commerce. The panel reviewed the barriers to the successful adoption of mobile commerce, and identified these as rigid policy and regulatory requirements, and security of mobile money transactions. Governments and regulators were urged to promote and encourage the creation of ecosystems with established players cross the m-commerce value chain, and to develop policies that encourage innovation in the sector.

Overall, the challenges facing the mobile applications and value added services sector in developing countries were identified as Enabling platforms, Funding of Incubators and Central Hubs, Accessibility to Broader Markets, Enabling Policies & Regulations, and alternative Financing Mechanisms. An effective evaluation mechanism for the impact of mobile applications was also suggested.

8.2 Presentations/ Discussions

The session, chaired by Professor Robert Jallan'go Akello, Lecturer in Telecommunications and Electronics, Multimedia University of Kenya, comprised of :-

(i). A presentation entitled: "Examining innovative m-health initiatives "by Richard Rajwayi, Service Delivery Manager, Sproxil East Africa Ltd.

(ii). A presentation entitled: "M-health: Using m-health to enhance learning and practice amongst community health volunteers in Kenya" by Caroline Mbindyo, Programme Manager e-Health, Amref Health Africa, Kenya

(iii). A presentation entitled: "The mobile money revolution in East Africa" by Godfrey W. Kyama, e-Banking Advisor, Central Bank of Kenya School of Monetary Studies

(iv). A presentation entitled: " Apps usage in remote areas " by Eng. Martin Obuya, iHub Ambassador, Government, Affairs

(v) A Panel discussion on " Mobile application development - Challenges and best practices"

8.3 Key Issues Arising

- Operators and regulators should address threats to m-Commerce such as identity theft, phishing, and loss of personal data. This calls for enhancing of security mechanisms in order to establish confidence and quality assurance for trading over the mobile devices.
- Governments and regulators should enact policies and regulations that promote innovation in the mobile applications sector
- Main focus needs to given primarily on creation of an enabling environment for increased availability of scalable mobile applications. This can be achieved through establishment of enabling platforms, funding of incubators, accessibility to broader markets through integration with other money payment systems, and alternative financing mechanisms to enable scalability of m-applications.
- Human capacity development and improvement in digital literacy is required to make citizens aware and able to make use of mobile applications.
- An effective mechanism for evaluating the impact of mobile applications is required

9 Session 7: Inclusive Online Learning

9.1 Summary

The session featured an introduction to "we.learn.it" initiative which is supported by the European Commission. The forum was informed that we.learn.it project is composed of learning expeditions, which are an inquiry-based, and initiated by a team of explorers and guided by an explorer guide. Learning expeditions can be in the form of a project that young people develop and implement, without or within a framework of a concept and method developed by teachers or partners.

The forum was informed that we.learn.it offers help for setting up learning expeditions using a design that supports inquiry-based learning, facilitators in the form of master explorers guidance and a learning expeditions "matching service" (for schools, teachers, or learners),an international approach to networking, a technology pool consisting of an evolving set of collaborative technologies, funding mechanism for learning expeditions, sharing possibilities for content, methodologies, results, and evaluation tool for schools.

9.2 Presentations/ Discussions

The session, chaired by Prof. Tim Unwin comprised of :-

(i). A presentation entitled: "we.learn.it Initiative" by Dr. Martin Koyabe, Head of Research and Consultancy, Commonwealth Telecommunications Organisation

9.3 Key Issues Arising

The CTO, is a partner in the "we.learn.it" initiative and encourages institutions & interested individuals to join the initiative

10 Session 8: Low Cost Space - From Imagination to Reality

10.1 Summary

The session focused on the Lunar Mission One, with a live footage from the Reinventing Space Conference 2014 held in London, and organised by the British Interplanetary Society. This is a global collaboration project led initially by Lunar Missions Ltd. Ultimate responsibility will then be transferred to a special non-profit charity, the Lunar Missions Trust, whose objectives are "the advancement of education and research in the fields of space science, engineering and technology and promotion of the applications thereof". As the name implies, Lunar Mission One will be the Trust's first mission; but if revenues are in line with market research projections, then this mission will raise surplus funds that will be used to finance future inspirational space science and exploration projects. The timelines for this mission span from 2014 for initial design to 2024, when the mission launch and start of lunar operations are expected.

10.2 Key Issues Arising

The CTO supports Lunar Mission One, and encourages member states, institutions and other interested parties to join the initiative.

11 Session 9: Financing Broadband in Africa

11.1 Summary

The Session reviewed Universal Access (UA) programs and the distribution and management of Universal Service Funds (USF). It was agreed that Universal Funds programmes are a means of ensuring reliable and affordable internet/broadband for all. The Alliance for Affordable Internet (A4AI) outlined its efforts to ensure internet is affordable by the majority, and shared its latest publication dubbed "Affordability Report, 2013".

The session was in agreement that with the rapidly changing ICT sector, it's important for national governments to prioritise the creation of effective national UA strategies that meet the communication needs of their citizens. Increasingly, there is need to integrate broadband access into UA programmes. Best practices and trends in the management of USF were reviewed, and practical insights into the fund management presented.

The session acknowledged that similar to access to ICTs, there are differing rates of broadband adoption across geographical areas. These access gaps present an important challenge to policy makers and are obstacles to the goal of achieving universal access to broadband. The session noted that due to

the growing trend by individuals to communicate online and the commitment of public and private institutions to shift services online, lack of broadband access presents a significant disadvantage of an individual or organization to their peers with broadband access.

Two Universal Service Funds initiatives reviewed included Kenya's USF programme, and Ghana's Investment Fund for Electronic Communications (GIFEC). The presenters shared experiences and challenges from the two initiatives. It emerged that Ghana's programme has been highly successful due to stakeholder buy-in arising from the multi-stakeholder composition of the fund management board.

11.2 Presentations/ Discussions

The session, chaired by Mr. Kojo Boakye, Manager, Policy and Advocacy, Alliance For Affordable Internet (A4AI) comprised of :-

(i). A presentation entitled: "Enabling Affordability, Ensuring Development"- by Kojo Boakye, Manager, Policy and Advocacy, Alliance For Affordable Internet (A4AI)

(ii). A presentation entitled: "Enabling digital innovation through universal service and access funds", by Paul Kiage, Manager, Project Monitoring and Evaluation, Communications Authority of Kenya

(iii). A presentation entitled: "Ghana Investment Fund for Electronic Communications (GIFEC) ", by Philip Premph, Business Development Manager, Ghana Investment Fund for Electronic Communications

(iv) A Panel discussion on " Financing broadband in Africa – Affordable internet for all?".

11.3 Key Issues Arising

- Re-engineer USF programmes to support ICT/Broadband services in addition to basic voice telephony and community access points
- Satellite services could provide affordable connectivity solutions in remote areas and help achieve universal access to broadband
- Infrastructure sharing and open -access among operators must be encouraged
- Need for Governments to declare ICT & broadband as critical infrastructure
- Exploitation of public private partnerships to facilitate extra funding for USF.
- For USF programmes to be successful, they must be based on sound legal, policy and regulatory framework
- The USF must be managed by an autonomous/independent fund administrator with an inclusive stake-holder representation
- The following were identified as the challenges facing USF programmes in Africa :-
 - High cost of access to internet services
 - High cost of supporting infrastructure i.e fibre & broadband networks, roads, energy etc

- Low-levels of stakeholder buy in leading to insufficient contributions to the Fund
- Funding & financing challenges
- Resistance to infrastructure sharing & open access by operators
- Sustainability & scalability of funded projects
- High taxation on devices and services
- Poor management of USF programmes

12 Session 10: Strengthening Multi-Stakeholder Partnerships to Accelerate Investment Projects in Broadband Infrastructure

12.1 Summary

The session reviewed the various methods of strengthening Multi-Sector Partnerships to Accelerate Investment Projects in Broadband Infrastructure. Recognising that National broadband strategies and policies are vital tools for broadband inclusion for all, the CTO presented on the efforts it has undertaken to assist Sierra Leone develop a broadband strategy targeting access to broadband at minimum speeds of 2 Mbps by 40 percent of the population by 2018.

The session resolved that while the private sector will play the central role in broadband development, a conducive policy and regulatory framework is essential for broadband deployment and uptake to succeed. Furthermore, the session observed that the PPPs must focus on core competences and be based on the principle of equal partners.

It was observed that where public funds are committed to broadband infrastructure investment such as in PPPs, regulators should encourage open access arrangements to maximize the economic benefits. The session further observed that policy makers and regulators have several options to provide incentives for the private sector to invest in the ICT sector such as by adopting enabling policies, simplifying licensing regimes, making available more spectrum, reducing regulatory obligations, and offering tax incentives. While noting that innovation is essential to the growth of the broadband economy and for ensuring the right to access, Governments and the private sector were urged to support investment in R&D activities especially those geared towards the development of innovative digital applications and content.

12.2 Presentations/ Discussions

The session, chaired by Prof. Tim Unwin comprised of :-

(i). A presentation entitled: "Commonwealth Broadband Strategy – Analysing Sierra Leone's National Broadband Project" by Prof. Tim Unwin, Secretary-General, Commonwealth Telecommunications Organisation

(iii). A Discussion entitled: "Working together to promote e-initiatives and increase access to broadband"

12.3 Key Issues Arising

- A conducive policy and regulatory framework is essential to encourage investments in broadband infrastructure.

- PPPs must focus on core competences and be based on the principle of equal partners.
- When public funds are committed to broadband infrastructure investment, regulators should encourage open access arrangements.
- Provide incentives to for investment in the ICT sector. These include enabling policies, simplifying licensing regimes, making available more spectrum, reducing regulatory obligations, and offering tax incentives.
- Support investment in R&D activities especially those geared towards the development of innovative digital applications, content and advanced technologies.

13 Closing Remarks

Mr. Juma Kandie, Director, Communications Authority of Kenya (CA) on behalf of the Director General, CA, thanked the participants for the lively discussions they had engaged in over the last three days. He noted that the forum had presented opportunities and challenges to the participants, and urged them to build on them for a better broadband economy. Professor Tim Unwin, Secretary-General, Commonwealth Telecommunications Organisation called for better co-ordination among stake holders in the broadband eco-system, and encouraged wider multi-stake holder partnerships due to the multi-sectorial nature of broadband. He stressed that emphasis must be put on first mile access as much as has been the case for the last mile connectivity. Mr. Brown Otuya, Secretary of Administration, Ministry of Information, Communications and Technology on behalf of the Cabinet Secretary, observed that broadband must be at the centre of our development agenda and assured participants that Kenya supports international collaborations to advance the broadband agenda. He welcomed participants back to Nairobi for the CTO forum 2015, and officially declared the forum closed.

Dr. G.B. Mugeni, Ph.D

Eva Mwasho

Fred Onga'aro

Rapporteurs